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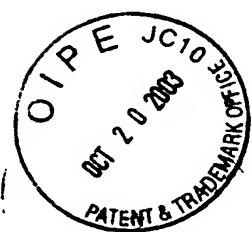
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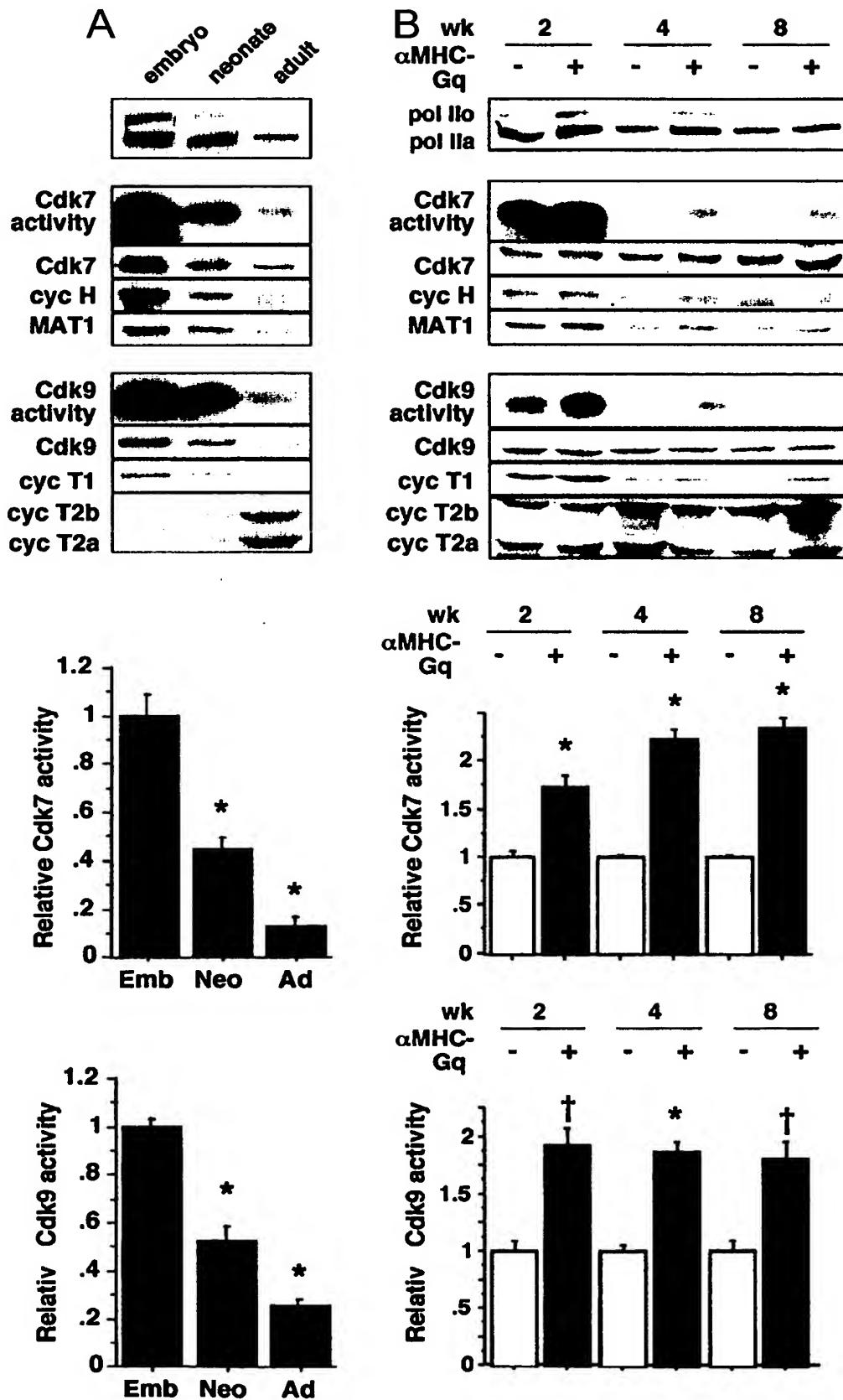
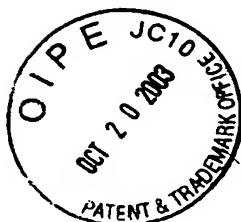


FIG. 1



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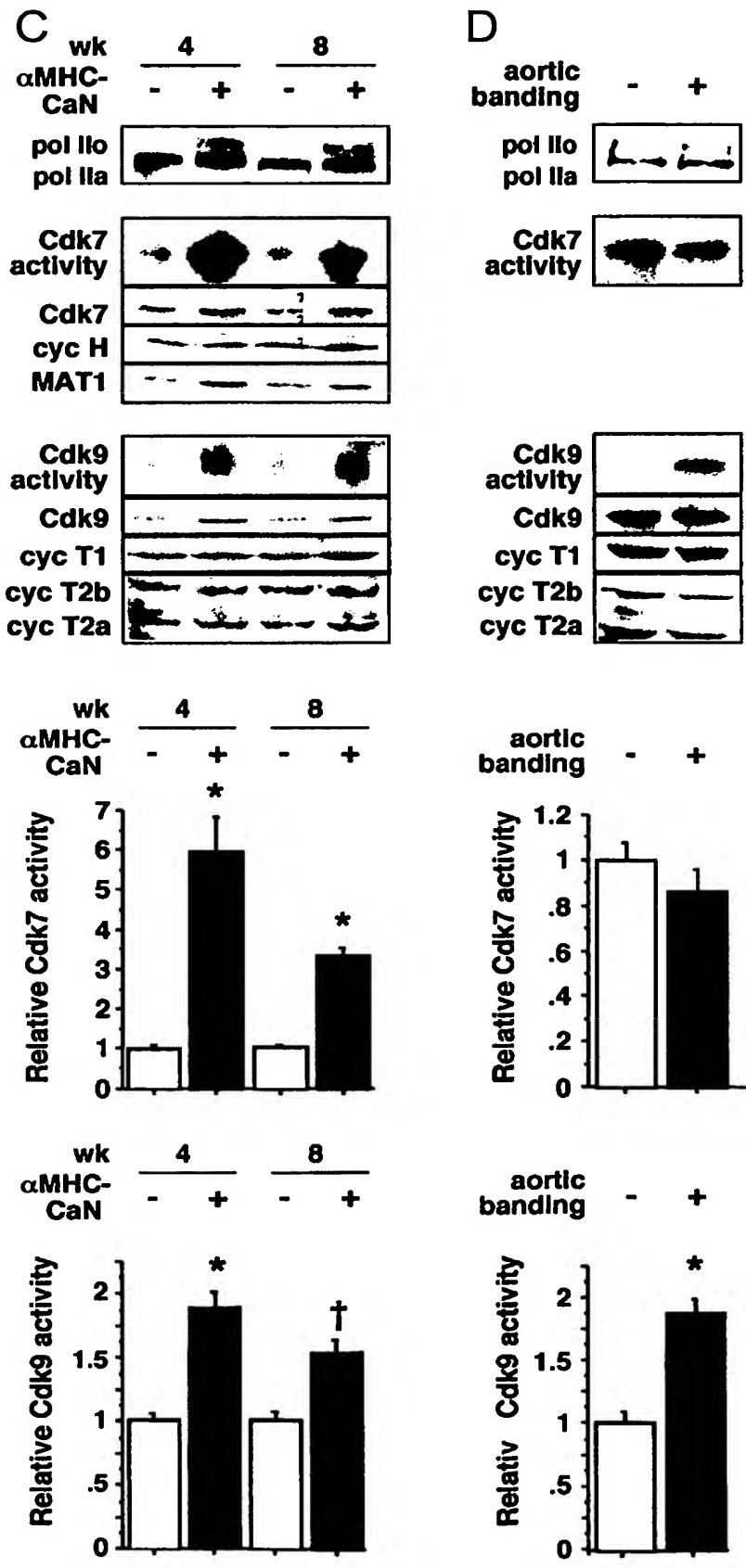
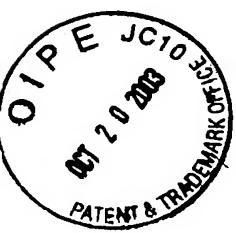


FIG. 1



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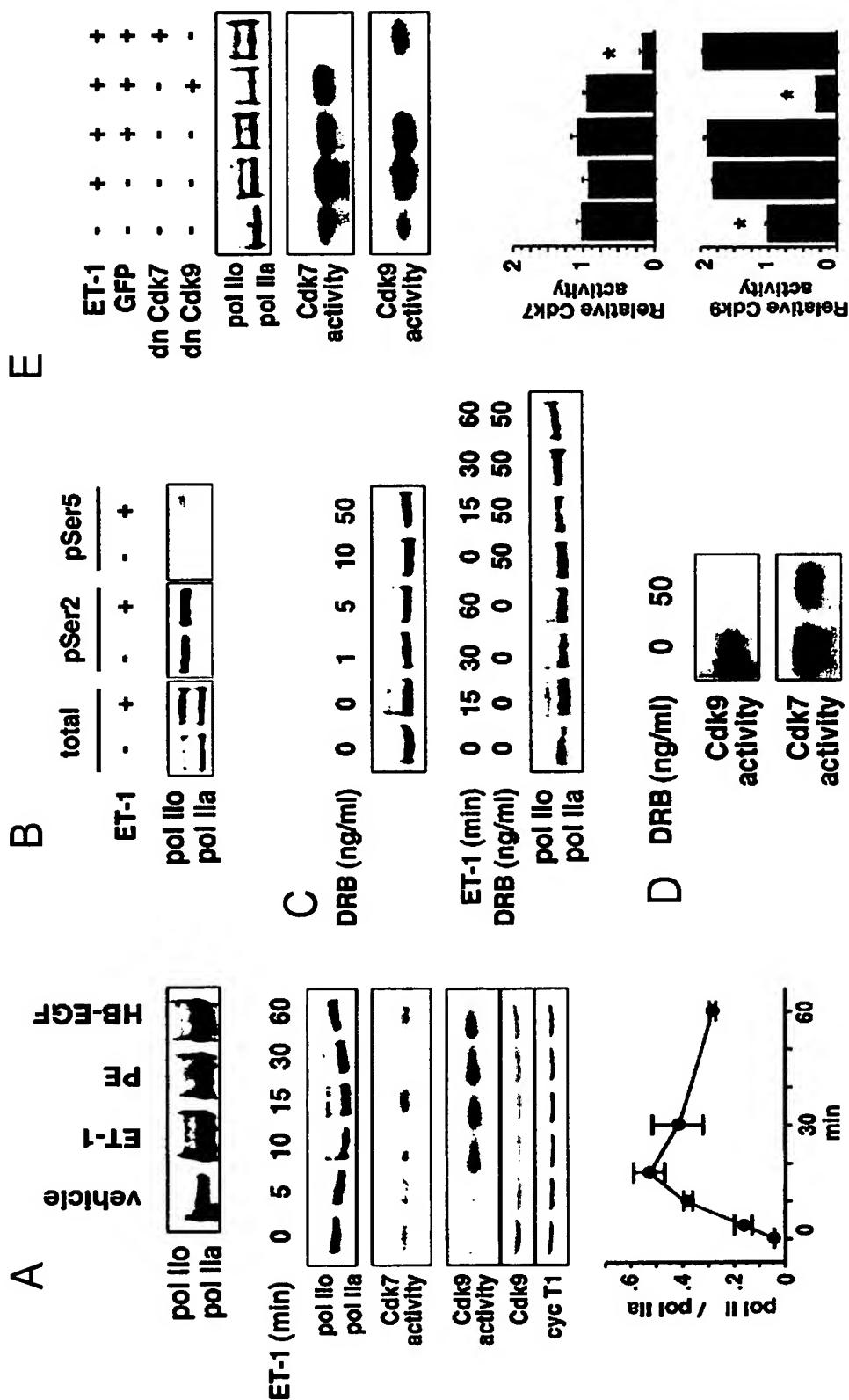
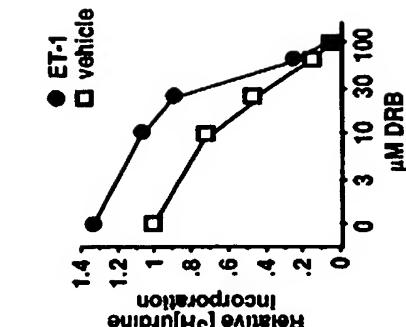
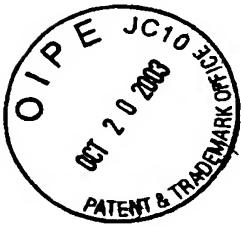


FIG. 2



G

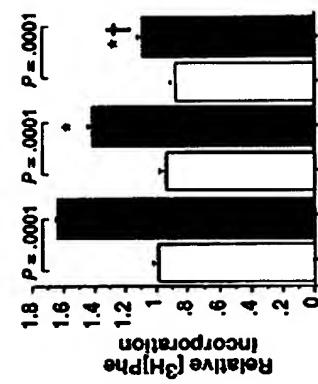
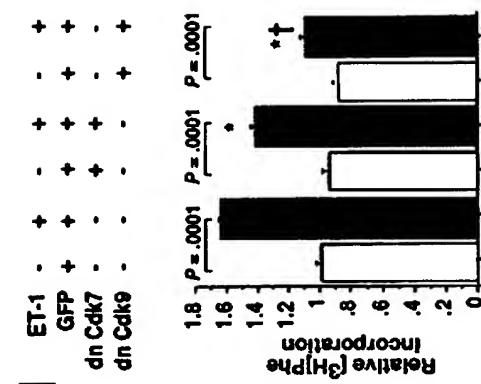
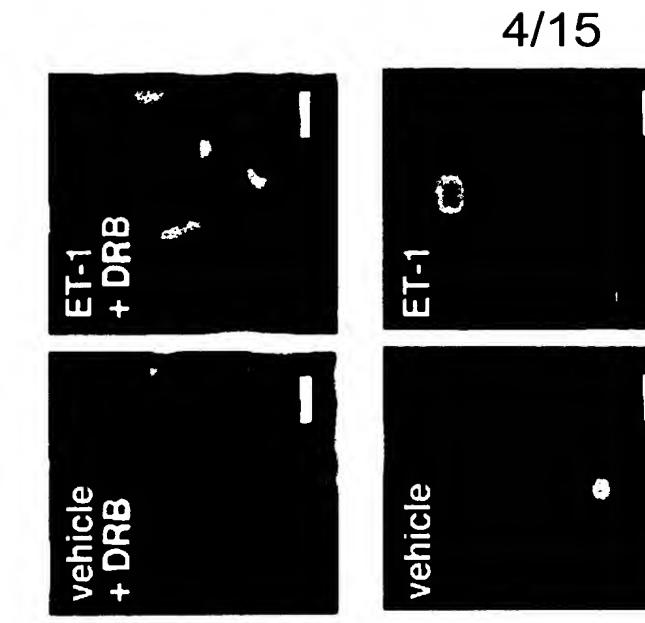
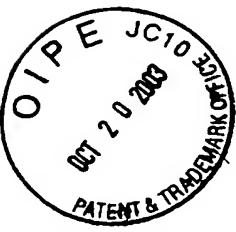


FIG. 2



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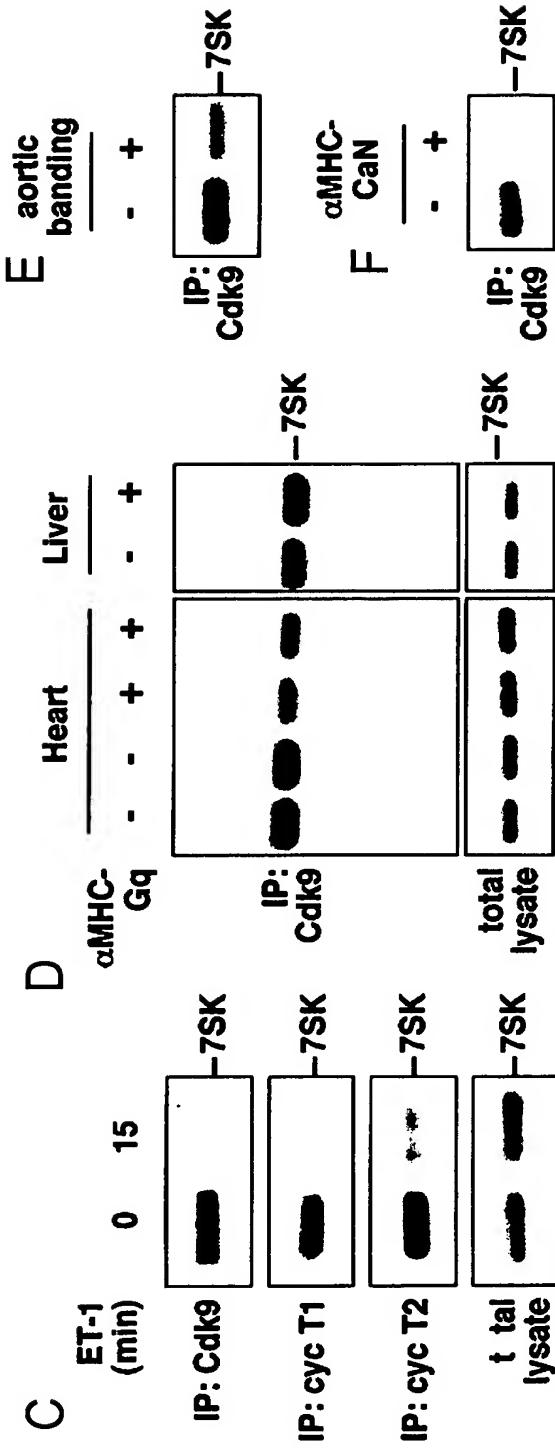
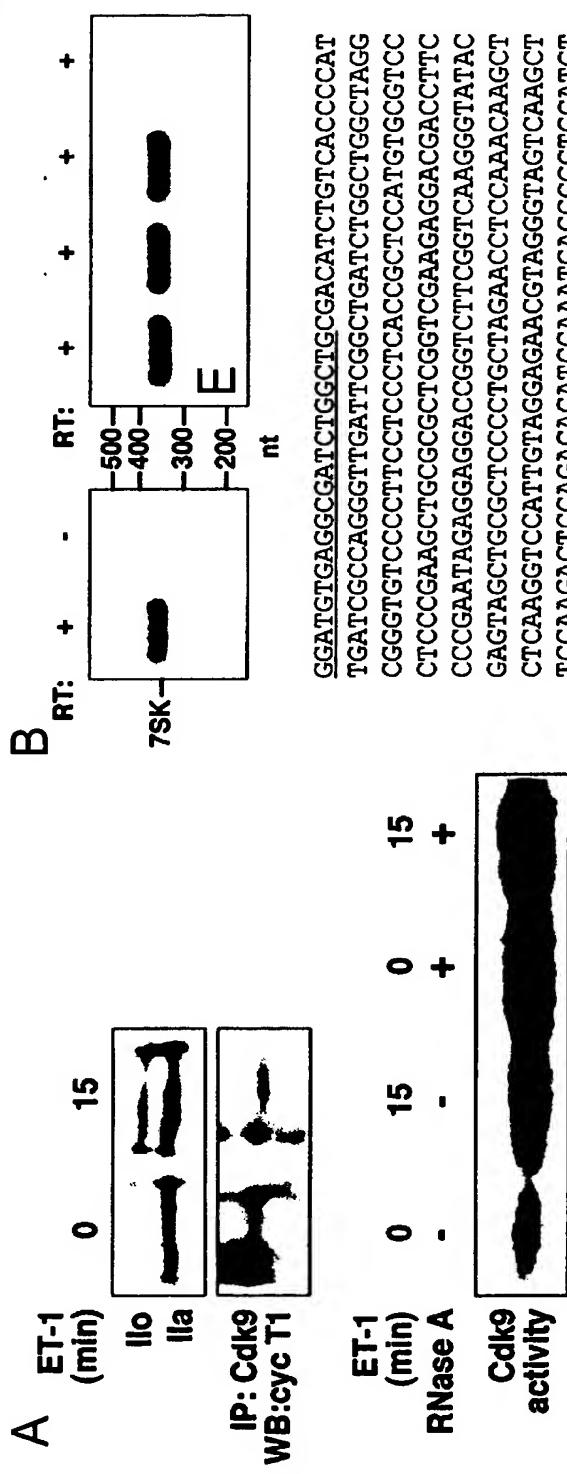


FIG. 3

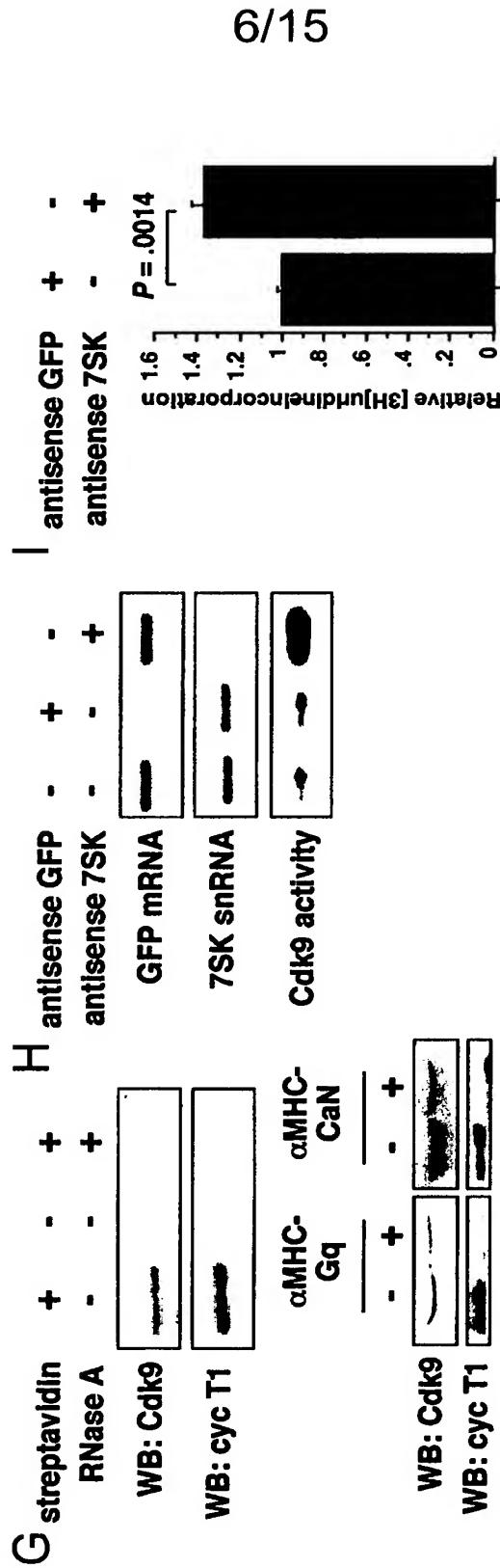
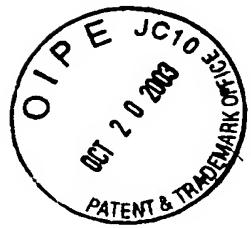
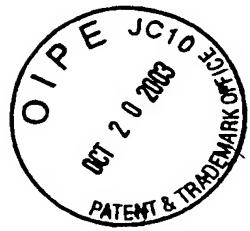


FIG. 3



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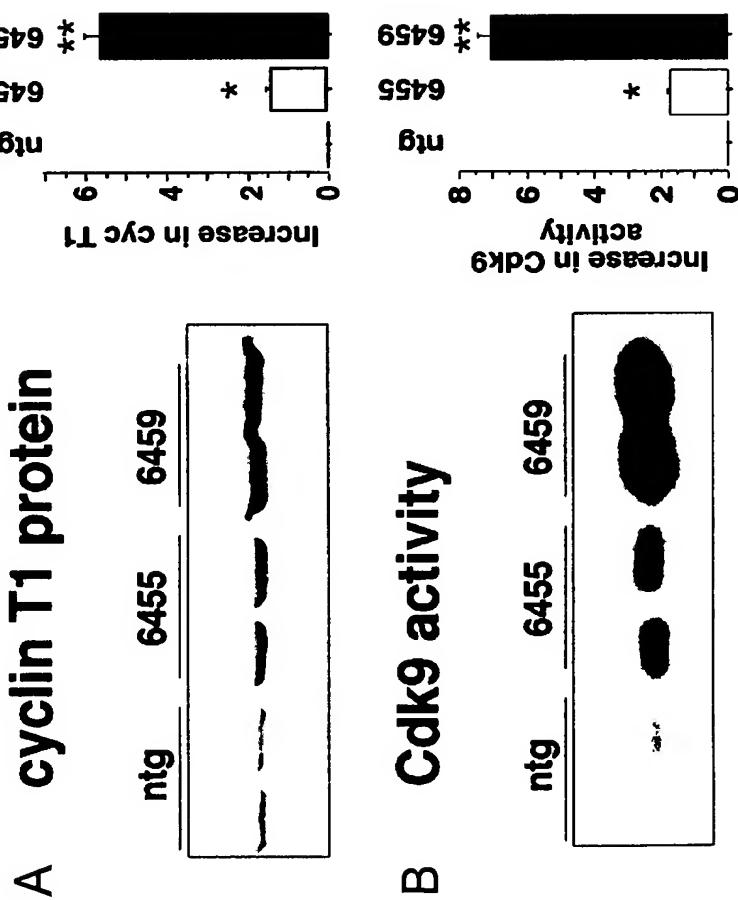
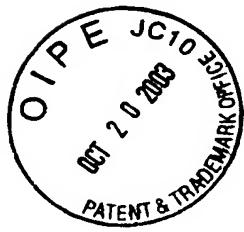


FIG. 4



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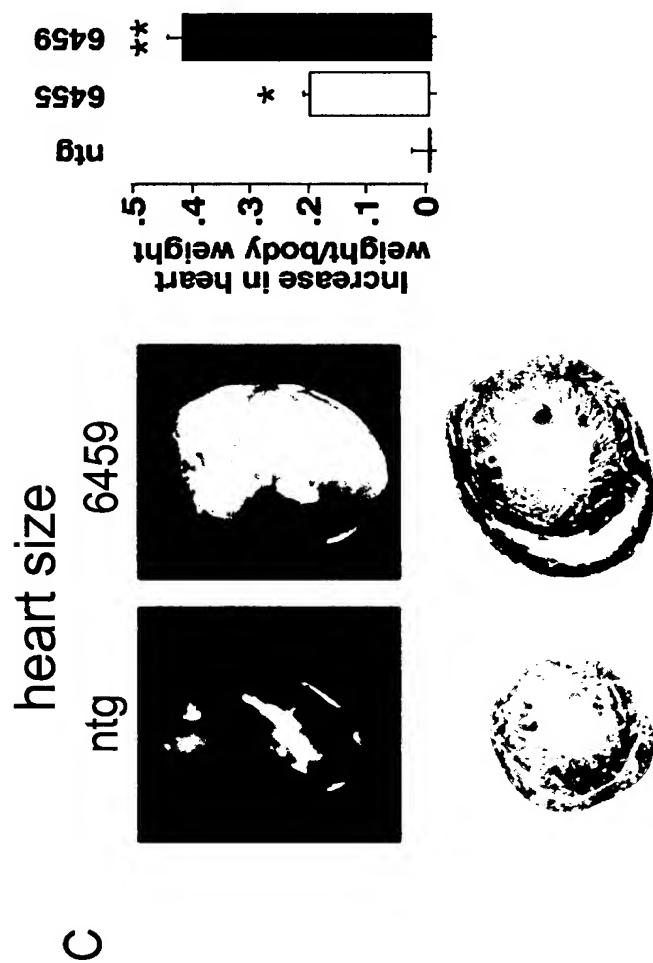


FIG. 4

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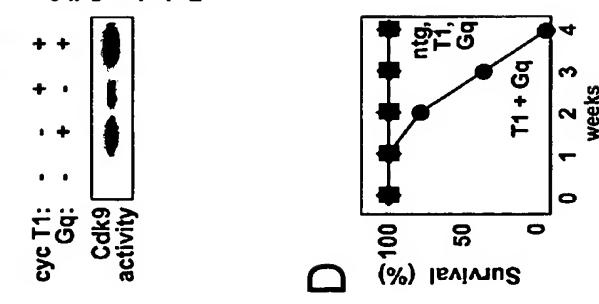
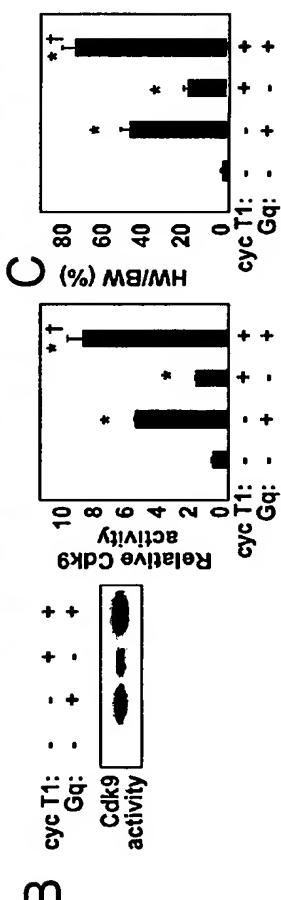
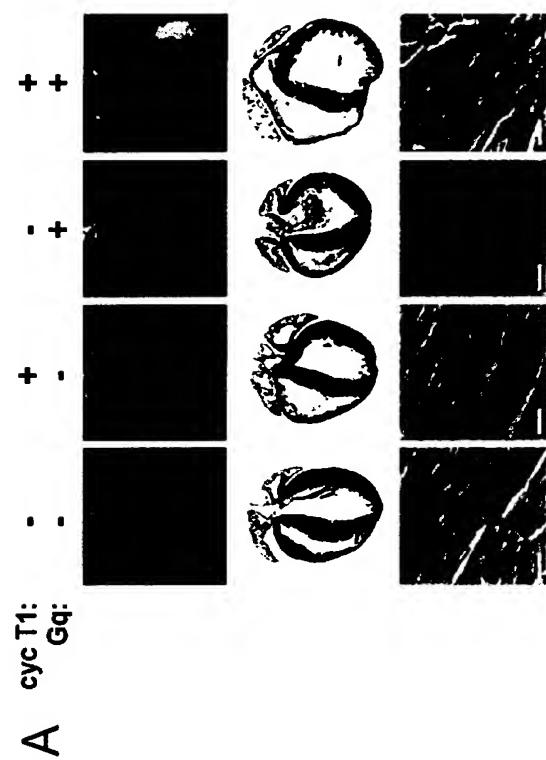
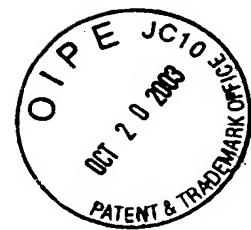
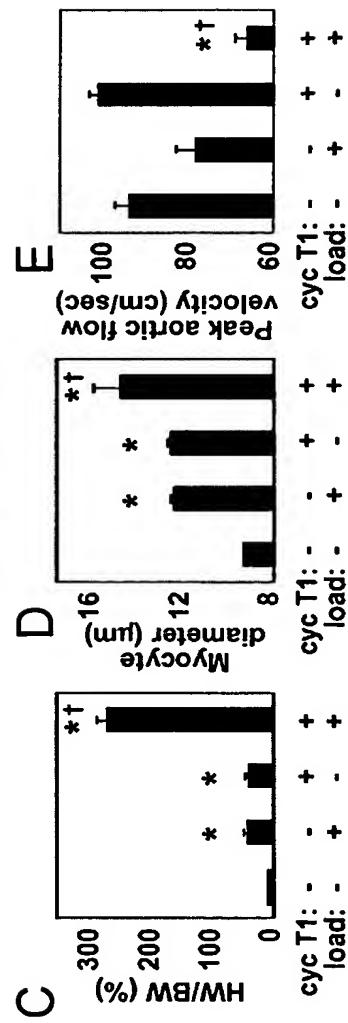
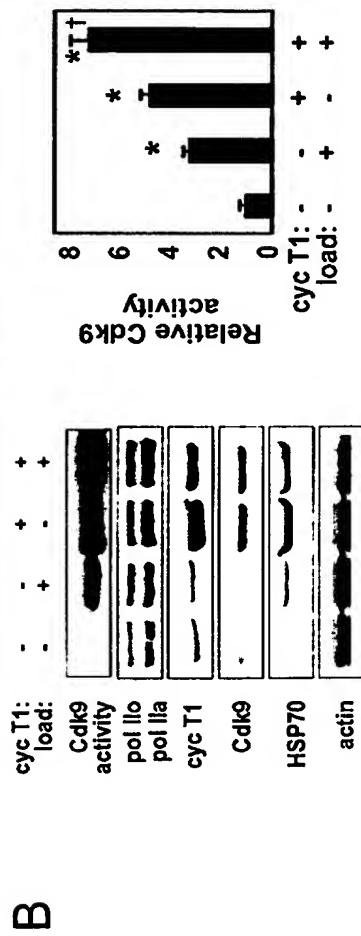
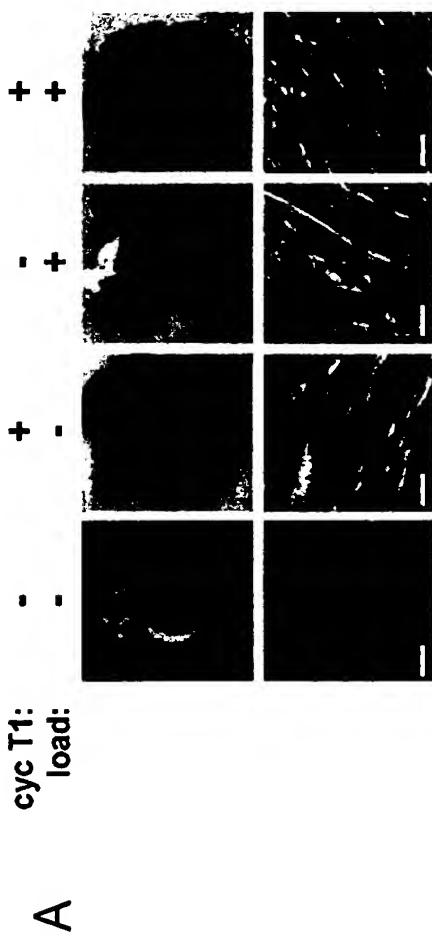
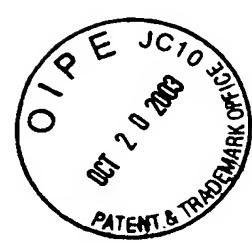
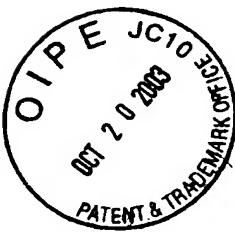


FIG. 5

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**FIG. 6**



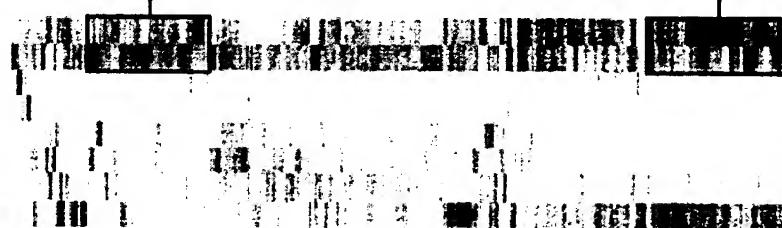
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## INDUCED SYNERGISTICALLY BY CYCLIN T1 + GQ:

26S proteasome-associated padi homolog	nestin
aldehyde dehydrogenase family 1, subfamily A1	NIMA-related kinase 7
annexin A1, A3	nuclear protein 1
BCL2/adenovirus E1B 19 kDa-interacting protein 1, NIP3	P02 and LM domain 3
casein kinase 1, 5	peptidylprolyl isomerase C
CD44 antigen	peroxiredoxin 4
ceruloplasmin	phosphatidylinositol-4-phosphate 5-kinase, type 1 $\alpha$
chloride intracellular channel 4 (mitochondrial)	phosphofructokinase, platelet
connective tissue growth factor	phospholipase A2, group IV
cytochrome P450, 1b1, benzofuranacetone inducible	procollagen, type V, $\alpha$ ; type VII, $\alpha$
cytokine receptor-like factor 1	proline 4-hydroxylase, $\alpha$
DEAD (Asp-Glu-Ala-Asp) box poly peptide 3	prolyl 4-hydroxylase, $\beta$ polypeptide
DEADH (Asp-Glu-Ala-Asp/His) box poly peptide 50	prostaglandin D2 (prostacyclin) synthase
dual specificity phosphatase 6	quaking
elastin	ras homolog gene family, member J
endothelin 1	RAS p21 protein activator 3
fibroblast growth factor, inducible	reelin
fibulin 2	Rho-associated coiled-coil forming kinase 2
FK506 binding protein 7 (23 kDa)	ribonuclease, RNase A, family 4
growth arrest specific 6	RNA polymerase I associated factor, 53 kD
H3 histone, family 3B	S100 calcium binding protein A6 (calcyclin)
heat shock 27 kD protein 2	sarcoglycan, $\beta$
heparin binding epidermal growth factor-like growth factor	scavenger receptor class B, member 2
HIV type 1 enhancer binding protein 1	serpin, clade E, members 1, 2
hypoxia inducible factor 1 $\alpha$	serpin, clade F, member 1
insulin-like growth factor binding protein 7	SH3-binding domain glutamic acid-rich protein-like
Integrin $\beta$ 5	spordin/aspermine N1-acetyl transferase
lipocalin 7	thrombospondin 1
LPS-induced TN factor	tissue inhibitor of metalloproteinase 3
lysyl oxidase	transforming growth factor, $\beta$ 1
metallothionein 1	troponin I, skeletal, slow
myomesin 2	vascular cell adhesion molecule 1
myosin light chain, alkali, cardiac atria	WW domain-containing protein 4

cyclin T1  
Gq

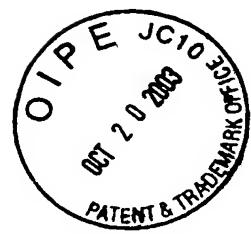
-	+	+
-	+	-



## REPRESSED SYNERGISTICALLY BY CYCLIN T1 + GQ:

3-oxoacid CoA transferase	interferon activated gene 203
acetyl-Coenzyme A dehydrogenase, short chain	interferon activated gene 204
aldo-keto reductase family 1, member B7	isocitrate dehydrogenase 3 (NAD $^+$ ) $\alpha$
alpha-methylacyl-CoA racemase	isocitrate dehydrogenase 3 (NAD $^+$ ) $\beta$
branched chain ketoad dehydrogenase E1, $\beta$	mitochondrial ribosomal protein L12
carnitine palmitoyltransferase 2	mitochondrial ribosomal protein L3
citrate synthase	NADH dehydrogenase (ubiquinone) flavoprotein 2
creatine kinase, muscle	peroxiredoxin 3
cyclic-D-dependent kinase inhibitor 1C (P57)	phosphatidyl transfer protein
DEAD/H (Asp-Glu-Ala-Asp/His) box poly peptide 16	phosphatase, CoA hydrolase
dihydrofatty amide branched chain transacylase E2	potassium voltage-gated channel, Shal-related family,
dihydrofatty amide dehydrogenase	programmed cell death 6
dodecenoyl-Coenzyme A acetyltransferase precursor	proteasome (prosome, macropain) 28 subunit, $\alpha$
enoyl Coenzyme A delta isomerase	retinoid X receptor $\gamma$
enoyl transferase flavoprotein, $\alpha$	secreted modular calcium binding protein 2
enoyl Coenzyme A hydratase 1, peroxisomal	sepin 4
FK506 binding protein 4 (59 kDa)	stablyttransferase 8 (alpha 2, 8- $\alpha$ lyttransferase) D
G elongation factor	succinate-Coenzyme A ligase, ADP-forming, $\beta$ subunit
gap junction membrane channel protein $\alpha$ 1	succinate-Coenzyme A ligase, GDP-forming, $\beta$ subunit
GpE-like 1, mitochondrial	tromatrin (plasmogen binding protein)
heat shock protein 10 kDa protein 1 (chaperonin 10)	transcription elongation factor A (SII) 3
heat shock protein, 60 kDa	translocator of inner mitochondrial membrane 44
inner membrane protein, mitochondrial	

FIG. 7



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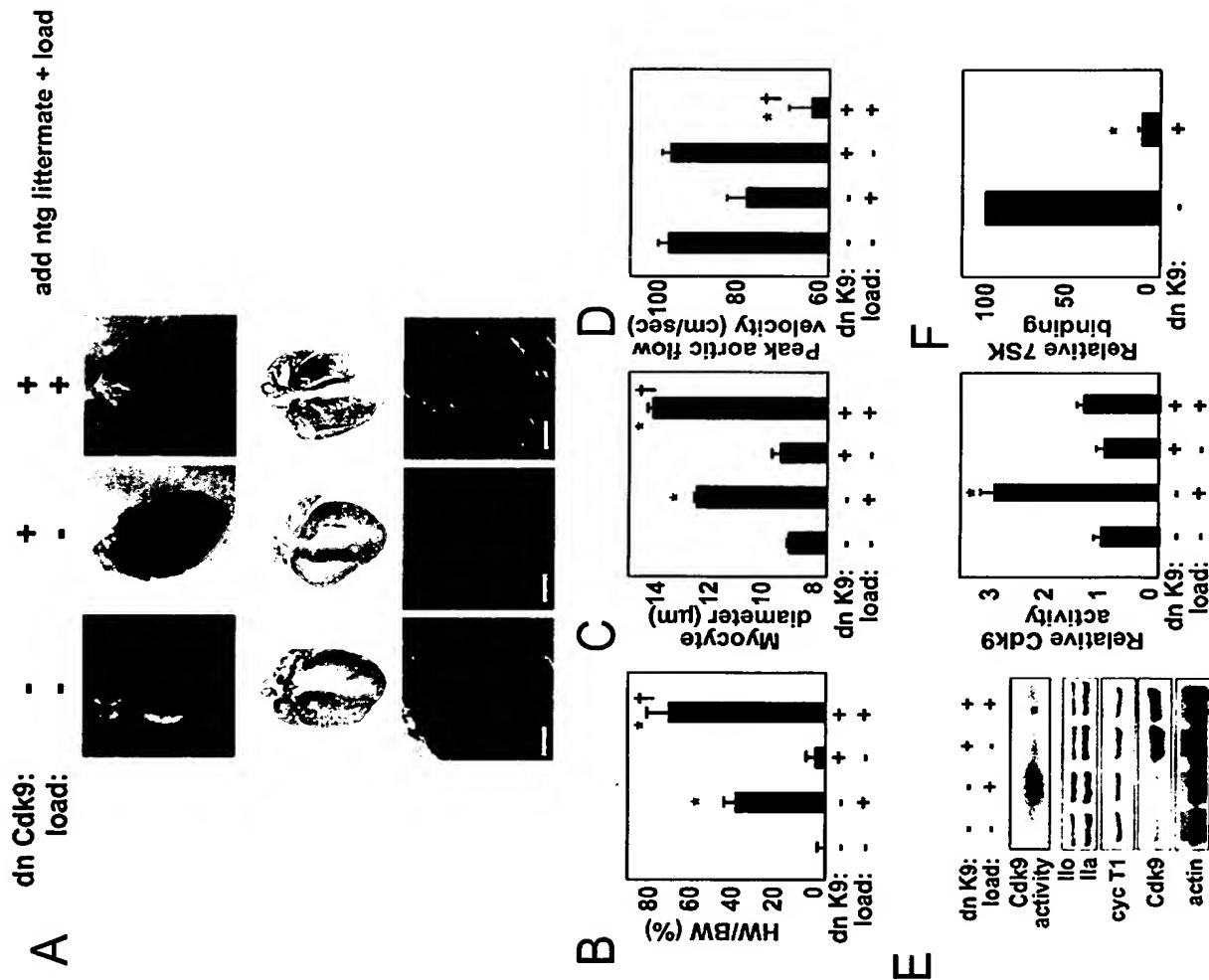
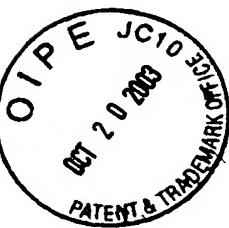
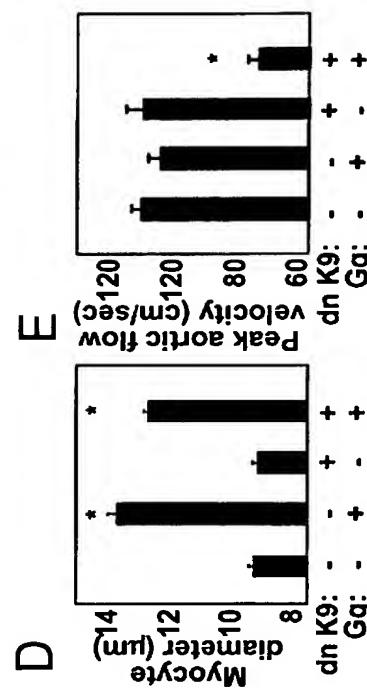
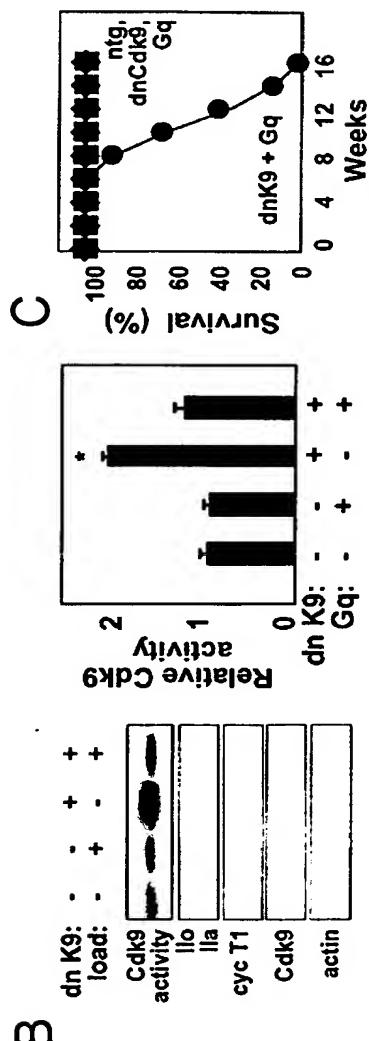


FIG. 8



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9  
FIG

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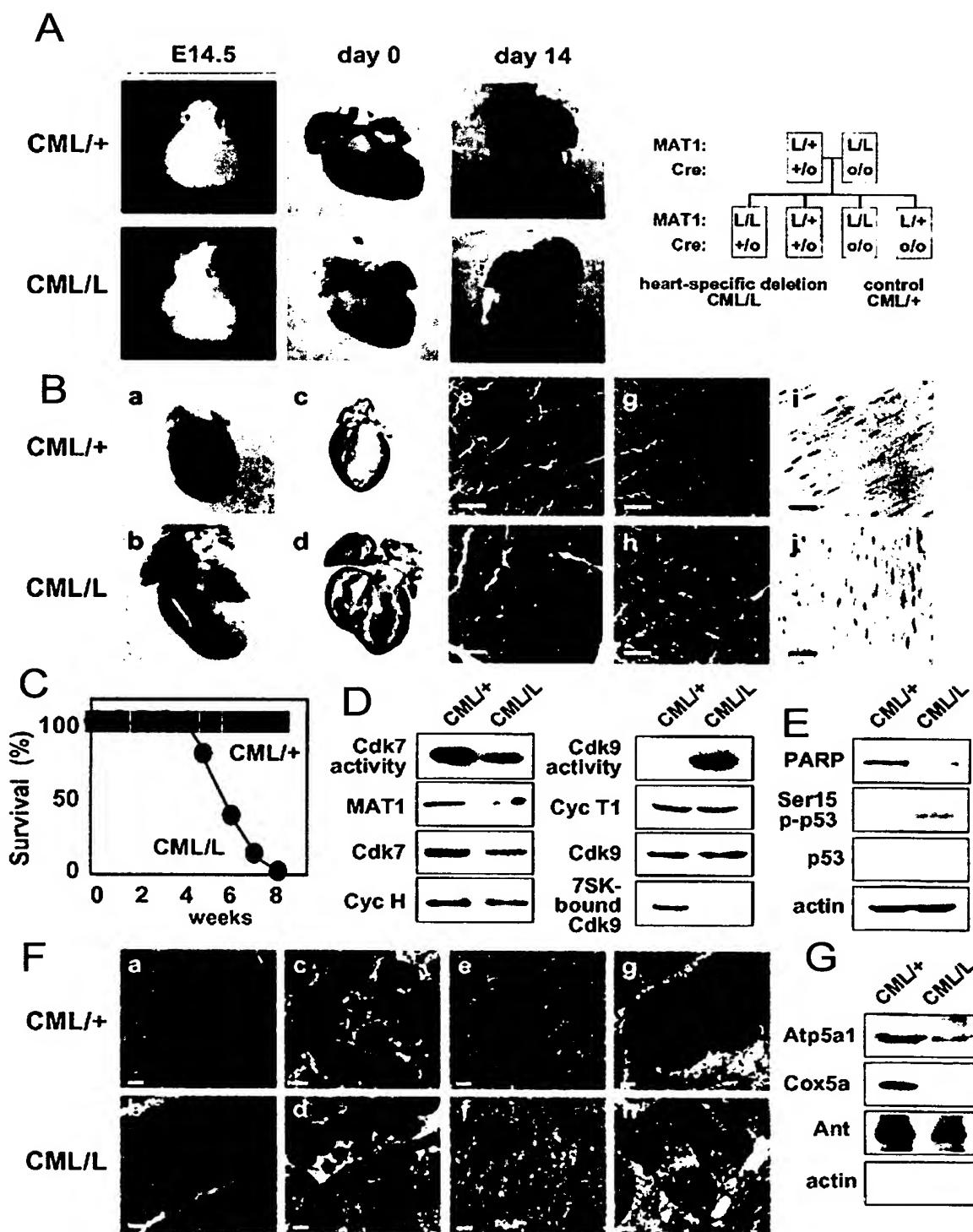
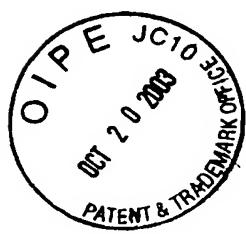


FIG. 10

Inventor: Michael D. Schneider, et al.

Title: MODULATORS OF Cdk9 AS A THERAPEUTIC TARGET  
IN CARDIAC HYPERTROPHY

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$\alpha$ MHC-Cre	+	2	4	
age (wk)	+	L	+	L



## REPRESSED AT 4 WK BY CARDIOMYOCYTE-SPECIFIC DELETION OF MAT1:

3-oxoacid CoA transferase  
acetyl-Coenzyme A dehydrogenase, short chain  
GCL2/denovirus E1B 19 kDa-interacting protein 1, NIP3  
bone morphogenetic protein 7  
branched chain ketone dehydrogenase E1, beta  
cadherin 13  
calcium channel, voltage-dependent, T type, alpha 1G  
cardiac efficiency-associated gene expressed in ventricle 1  
catalase-O2-lyase transferase  
citrate synthase  
cub-Nike 1 (Drosophila)  
cytochrome c oxidase, subunit VIIa 1  
DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 18  
deleted in polyposis 1  
dihydrofattyamide branched chain transacylase E2  
dihydrofattyamide dehydrogenase  
dodecyl-Coenzyme A delta isomerase  
electron transferring flavoprotein, alpha  
enoyl coenzyme A hydratase 1, peroxisomal  
enoyl Coenzyme A hydratase, short chain, 1, mitochondrial  
endoplasmic reticulum activation protein  
FK506 binding protein 4 (69 kDa)  
four and a half LIM domains 2  
fumarate hydratase 1  
G elongation factor  
gap junction membrane channel protein alpha 1  
heat shock 10 kDa protein 1 (chaperonin 10)  
heat shock protein, 60 kDa  
histidine rich calcium binding protein  
interferon activated gene 203  
isocitrate related homeobox 3 (Drosophila)  
isocitrate dehydrogenase 3 (NAD<sup>+</sup>)-alpha  
isocitrate dehydrogenase 3 (NAD<sup>+</sup>), gamma  
isovaleryl coenzyme A dehydrogenase  
Kit ligand

lipo 1  
lipoceilin 7  
metal response element binding transcription factor 2  
metallothionein 1  
methylenetetrahydrofolate-Coenzyme A mutase  
mitochondrial ribosomal protein L12  
mitochondrial ribosomal protein L34  
myeloid leukemic factor 1  
myomein 2  
NADH dehydrogenase (ubiquinone) flavoprotein 2  
p300/CBP-associated factor  
peroxiredoxin 3  
phosphofructokinase, liver, B-type  
phospholipid transfer protein  
phytanoyl-CoA hydroxylase  
plasma membrane associated protein, 83-12  
potassium voltage-gated channel, Shal-related family, 2  
programmed cell death 8  
prolactin  
retinol binding protein D2 synthase (21 kDa, brain)  
proteasome (prosome, macropain) 28 subunit, alpha  
RAN guanine nucleotide release factor  
retinoid X receptor gamma  
sequestosome 1  
sialyltransferase B (alpha-2, 6-sialyltransferase) D  
thiocolase-Coenzyme A hydratase, beta subunit  
sirtuin 3 (silent mating type information regulation 2, homolog) 3  
succinate dehydrogenase complex, subunit A  
thyroid hormone responsive SPC14 homolog (Ratite)  
transforming growth factor, beta induced, 68 kDa  
translocator of inner mitochondrial membrane 44  
ubiquinol-cytochrome c reductase core protein 1  
vascular endothelial growth factor B

## INDUCED AT 4 WK BY CARDIOMYOCYTE-SPECIFIC DELETION OF MAT1:

263 proteasome-associated pael1 homolog  
5' nucleotidase, ecto  
alpha 1 integrin and metalloproteinase domain 9  
actinin, alpha 1  
acyl-Coenzyme A thioesterase 2, mitochondrial  
adipose triglyceride lipase 3, mitochondrial  
aldehyde dehydrogenase family 1, subfamily A1  
annexin A1  
annexin A3  
arachidine homolog 2 (Drosophila)  
biglycan  
calcium and integrin binding 1 (calmyrin)  
cardiac morphogenetic  
casein kinase 1, delta  
CD24a antigen  
CD25 antigen  
chaperone, subunit 8 (theta)  
chloride intracellular channel 4 (mitochondrial)  
chondroitin sulfate proteoglycan 2  
coagulation factor II (thrombin) receptor  
connective tissue growth factor  
CREBBP/EP300 interacting protein 1  
cyclin-dependent kinase inhibitor 1A (P21)  
cysteine rich intestinal protein  
cytokeratin protein  
cytokine receptor-like factor 1  
cytokeratin 10, lymphocyte-associated protein 2 alpha  
DEAD/H box polypeptide 50  
deiodinase, iodothyronine, type II  
diaphorase 1 (NADH)  
dihydroxyfattyidase-like 3  
elastin  
enabled homolog (Drosophila)  
epidermal growth factor pathway substrate 15  
epithelial membrane protein 1  
fibulin 2  
focal adhesion kinase  
four and a half LIM domains 1  
glutathione synthetase  
glutathione peroxidase 3  
glycogenin 1  
granzin  
GrpE-like 1, mitochondrial  
H3 histone, family 3B  
heat shock 27 kDa protein 2  
heat shock 70 kDa protein 4  
heparin-binding epidermal growth factor  
histone H4  
HIV-1 Rev binding protein  
hypoxia inducible factor 1, alpha subunit  
I kappa B kinase  
I kappa B kinase epsilon  
I kappa B kinase gamma  
I kappa B kinase delta  
insulin-like growth factor binding protein 7  
insulin-like growth factor 1 receptor  
integrin alpha 5 (fibronectin receptor alpha)  
integrin beta 4 binding protein  
integrin beta 5  
integrin-linked kinase  
interferon-related developmental regulator 1  
famin A  
low-density lipoprotein receptor-related protein 10  
LPS-induced TNF factor  
lysyl oxidase

MAP kinase-interacting serine/threonine kinase 2  
matrix gamma-carboxyglutamate (gamma) protein  
moezin  
myosin, heavy polypeptide 7, cardiac muscle, beta  
myotrophin  
nestin  
Niemann-Pick type C2  
N31-associated protein 1-like  
nuclear cap binding protein subunit 2, 20 kDa  
nuclear factor Y  
nuclear protein 1  
ornithine decarboxylase antizyme inhibitor  
osteoblast specific factor 2 (fasciclin-like)  
paraoxonase 2  
PC2 and LIM domain 3  
phosphofructokinase, platelet  
phosphofructokinase, platelet  
proline 4-hydroxylase, beta polypeptide  
prostaglandin D2 (prostacyclin) synthase  
protein phosphatase 1A, Mg<sup>2+</sup> dependent, alpha  
protein tyrosine phosphatase, non-receptor type 21  
ras homolog gene family, member J  
RAS p21 protein activator 3  
reelin  
retinol binding protein 1, cellular  
RNA binding motif protein 4  
RNA polymerase I associated factor, 53 kDa  
S100 calcium binding protein A10 (calpastatin)  
S100 calcium binding protein A11 (calizzinin)  
S100 calcium binding protein A13  
S100 calcium binding protein A8 (calcyclin)  
secreted modular calcium binding protein 2  
secreted phosphoprotein 1  
serpin, clade B, member 1  
serpin, clade B, member 2  
serpin, clade C, member 1  
serpin, clade D, member 1  
serine protease inhibitor 6  
serine/threonine kinase 2  
stathmin-like 10  
stard associated polypeptide, 30 kDa  
Son of sevenless homolog 1, (Drosophila)  
spermidine/putrescine N1-acetyl transferase  
sphingomyelin phosphate lyase 1  
statin  
tumor necrosis factor  
tissue factor pathway inhibitor  
tubby-like protein 4  
tubulin, alpha 1  
tubulin, beta 2  
ubiquitin 1  
ubiquitin carboxy-terminal esterase L5  
ubiquitin carboxy-terminal hydrolase L1  
UDP-glucose dehydrogenase  
uridine-cytidine kinase 2

FIG. 11